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Fall

U. S. DEPT. OF AGRICULTURE
NATIONAL AGRICULTURAL LIBRARY

Semester

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Evening

CURRENT SERIAL RECORDS

Courses

GRADUATE SCHOOL • U. S. DEPARTMENT OF AGRICULTURE

Independence Avenue, between 12th and 14th Streets, Southwest, Washington, D. C. 20250 • DUDLEY 8-6337

Register

September 6-13



- Courses for High School and College Graduates
- Training for Federal Employees

REGISTER SEPTEMBER 6-13

General Information

Registration Week: September 6-13, in the Patio (first floor) of the Administration Building, U. S. Department of Agriculture, 14th Street and Independence Avenue, S.W., Washington, D. C. 20250.

Saturdays 9:00 a.m.-4:00 p.m.

Monday-Friday 11:00 a.m.-6:30 p.m.

Procedures: Registration must be completed in person, or by someone acting for the registrant. Registration may not be completed by mail. Transcripts of previous educational records are not required, but graduation from high school, or the equivalent, is the general prerequisite for all courses. The more advanced courses have specific prerequisites. These are listed in the course descriptions contained in the catalog. Copies of the catalog are available in the personnel and training offices of agencies of the Federal Government and in the Graduate School office. Copies can also be obtained at the time of registration.

Social Security Number: The student should bring this to registration.

Academic Credit: Any student wishing to receive credit elsewhere for Graduate School courses should consult in advance with the college or university in which he plans to take a degree.

Counseling: Members of the Graduate School staff are on hand for counseling before and during the registration period.

Fees: The charge for tuition is in general \$16 for each credit hour, payable at the time of registration. Arrangements may be made to pay one-half of the tuition at that time, in addition to a \$1.00 service charge. The second payment is due by October 10.

Late Registration: After September 13, a \$2.00 late registration fee is charged for each course. Late registrations will be accepted through September 19, with permission of the Registrar.

Course Transfers: Until September 26, students may transfer from one course to another without extra charge, but only if space permits. After that date, there is a transfer fee of \$1.00. Transfers may be made only with the permission of the Registrar and the instructor concerned.

Veterans: A veteran eligible for training under the Veterans Readjustment Benefits Act of 1966 (Public Law 89-358) should consult the Registrar well in advance of registration so that approval can be obtained from the Veterans Administration.

Class Schedule: Classes begin the week of September 15 and end the week of January 5.

Government Employees Training Act: If a student plans to ask his agency to pay all or part of his tuition under the training legislation (Public Law 85-507), he should make these arrangements well in advance of registration week.

Textbooks: Textbooks can be purchased at the Graduate School Bookstore, Room 1419, South Building.

Registration Week, September 6-13

Monday-Friday, 11:00 a.m.-6:30 p.m.

Saturdays (September 6 and 13 only) 9:00 a.m.-4:00 p.m.

First-third weeks of classes, September 15-October 3

Monday-Friday (only) 11:00 a.m.-6:30 p.m.

Beginning October 6 through the end of the semester

Monday-Friday (only) 11:00 a.m.-1:00 p.m. and 4:30 p.m.-6:15 p.m.

Bookstore Information: DUDley 8-6070

Withdrawals and Refunds: When a student withdraws from a course, a refund is granted in accordance with the following schedule:

Through September 26, tuition less \$5.00 for each course.

September 29-October 10, 60 per cent of total tuition only. No other fees refunded.

October 13-24, 50 per cent of total tuition only. No other fees refunded.

Laboratory fees are refunded only during the first week of classes. Notice of withdrawal must be made in writing to the Graduate School office. Forms are available for that purpose. Refunds are computed as of the date that notice of withdrawal is received in the Graduate School office. No refunds will be granted for any reason after October 24.

Credit-Audit Changes: The deadline is October 24.

Parking Space—Cafeteria: Space for parking is available for students and faculty only after 6:00 p.m. in two parking courts on the east and south sides of the Administration Building. There is also space on the Mall, north of the Administration Building. The cafeteria, in the fourth wing of the South Building, is open from 5:00 to 6:30 p.m.

Office Hours: The Graduate School office, Room 1031, South Agriculture Building, 14th Street and Independence Avenue, S.W., Washington, D. C. 20250, is open from 9:00 a.m. to 6:15 p.m. Monday through Friday.

Telephone DUDley 8-6337 (Code 111, extension 6337)

SCHEDULE OF CLASSES

Registration September 6-13

Classes Begin September 15

No.	Course Title	(Cr.)	Instructor	Day	Time	Fee	Catalog Page
BIOLOGICAL SCIENCES							
1-90A	Basic Principles of Laboratory Animal Care (First Half) (non-credit)		Johnson	Tu	6:10-8:40	\$48	p. 13
1-115A	Introduction to Modern Biology (First Half) (2)		Butler	W	6:10-8	\$32	and \$2 laboratory fee p. 13
1-126	Medical Terms Simplified (2)		Gillespie	Tu	6:10-8	\$32	p. 13 (Meets at National Library of Medicine, Bethesda, Maryland)
1-370	Fundamental Principles of Microbiology (3)		Fusillo	Th	6:10-8:40	\$48	p. 14 (Meets at Veterans Administration Hospital)
1-565	Fundamentals of Immunology (3)		Janicki	M	6:10-8:40	\$48	p. 14 (Meets at Veterans Administration Hospital)
1-425	General Pathology (3)		Burns	Tu	6:10-8:40	\$48	p. 14 (Meets at Veterans Administration Hospital)
1-146A	Applied Physiology (First Half) (3)		Greenbaum	Tu	6:10-8:40	\$48	p. 14 (Meets at National Naval Medical Center)
1-147	Physiology of Human Development (3)		Greenbaum	Th	6:10-8:40	\$48	p. 14 (Meets at National Naval Medical Center)
1-707	Advances in Plant Biochemistry (2)		Lieberman	W	4:45-6:25	\$32	p. 15 (Meets at Plant Industry Station, Beltsville, Maryland)
1-570A	Design of Experiments in Biological Sciences (First Half) (2)		Koch	Tu	4:45-6:35	\$32	p. 15 (Meets at Plant Industry Station, Beltsville, Maryland)

Natural History Field Studies

(Register September 6-13 for all courses.)

1-132	Introduction to Outdoors (1)		Lavell and Associates	M	6:10-8	\$16	p. 16 (Lectures September 15, 29; October 13, 27. Field trips September 20; October 4 and 18) (Meets at U. S. Department of the Interior)
1-131	Basic Biology (1)		Strosnider	W	6:10-8	\$16	p. 17 (8 weeks beginning November 12) (Meets at Museum of Natural History)
1-130	Physical Environment I: Geology (1)		Davies	M	6:10-8	\$16	p. 17 (Lectures September 22; October 6 and 20; November 3. Field trips September 27; October 11, 25) (Meets at U. S. Department of the Interior)
1-129	Physical Environment II: Weather and Climate (1)		Lehr	M	6:10-8	\$16	p. 17 (8 weeks beginning November 10) (Meets at U. S. Department of the Interior)
1-138	Biotic Communities I: Deciduous Forests (1)		Osborn and Kaniuka	Tu	6:10-8	\$16	p. 18 (Lectures September 23; October 7, 21; November 4. Field trips September 27; October 11, 25) (Meets at U. S. Department of the Interior)
1-134	Animal Behavior (1)		To be announced	Tu	6:10-8	\$16	p. 18 (8 weeks beginning November 18) (Meets at U. S. Department of the Interior)
1-135	Biotic Communities III: Aquatic and Marsh (1)		Salyer	Tu	6:10-8	\$16	p. 18 (Lectures September 16, 30; October 14, 28. Field trips September 20; October 4, 18) (Meets at U. S. Department of the Interior)
1-137	Conservation Philosophy (1)		Briggs	W	6:10-8	\$16	p. 18 (8 weeks beginning November 12) (Meets at U. S. Department of Agriculture)
1-151	Bird Life (1)		Messersmith	Th	6:10-8	\$16	p. 20 (Lectures September 18, 25; October 9, 23, 30. Field trips October 4, 18) (Meets at U. S. Department of Agriculture)
1-148	Citizens and Conservation (1)		Briggs	W	6:10-8	\$16	p. 18 (8 weeks beginning September 17) (Meets at U. S. Department of Agriculture)
1-149	Man and Environment (1)		Bandurski and Associates	Th	6:10-8	\$16	p. 18 (8 weeks beginning November 6) (Meets at U. S. Department of Agriculture)
1-153	Potomac Valley (1)		Wesely	M	6:10-8	\$16	p. 20 (8 weeks beginning September 15. Field trips September 20; October 4, 18) (Meets at U. S. Department of Agriculture)

LANGUAGES AND LITERATURE

English—Grammar and Writing

2-29	Spelling and Basic Vocabulary (non-credit)	Neuman	M	6:10-8	\$32	p. 24
2-39	Basic Grammar (non-credit)				\$32	p. 24
	Section I Robinson	W	6:10-8			
	Section II Edwards	Th	6:10-8			
2-112	Practical English Usage (2)				\$32	p. 24
	Section I Amabile	M	6:10-8			
	Section II Holt	Tu	6:10-8			
2-35	English for Secretaries (non-credit)	Hubbard	Tu	6:10-8	\$32	p. 24
2-95	Improving Reading Ability (non-credit)				\$48	p. 24 (8 weeks)
	Section I Henderson	M-W	6:10-8			
	Section II Henderson	M-W	8:10-10			
2-38	English for Foreigners I (non-credit)	Weeks	M	6:10-8	\$32	p. 24
2-52	English for Foreigners II (non-credit)	Weeks	W	6:10-8	\$32	p. 25
2-53	English for Foreigners III (non-credit)	Weeks	F	6:10-8	\$32	p. 25
2-119	Vocabulary Building (3)				\$48	p. 25
	Section I Lukstat	M	6:10-8:40			
	Section II Phagan	Tu	6:10-8:40			
2-222A	English Composition (First Half) (3)				\$48	p. 25
	Section I Traylor	Tu	6:10-8:40			
	Section II Daniels	W	6:10-8:40			
2-222B	English Composition (Second Half) (3)	Reed	M	6:10-8:40	\$48	p. 25
2-223	College Grammar (3)	Freyeisen	Tu	6:10-8:40	\$48	p. 25
2-230	Sentence Revision (2)	Robinson	Th	6:10-8	\$32	p. 25
2-250	College Rhetoric (3)	Freeman	M	6:10-8:40	\$48	p. 25
2-226	Official Writing (2)				\$32	p. 26
	Section I Schaal	M	6:10-8			
	Section II Doan	W	6:10-8			
2-235	Fiction Writing—Workshop (2)	Eisenberg	M	6:10-8	\$32	p. 26
2-280	Feature Writing (2)	Dolan	W	6:30-8:20	\$32	p. 26
2-450	Technical Writing (2)	Carter	M	6:10-8	\$32	p. 26

Literature

2-215	American Literature I (3)	Traylor	Th	6:10-8:40	\$48	p. 26
2-330A	Great Books (First Half) (2)	Ruppert	M	6:10-8	\$32	p. 27
	(Reading List B)					
2-370	Modern Drama (2)	Nannes	W	6:10-8	\$32	p. 28
2-405A	Literary Masterpieces of Orient (First Half) (2)	Arasteh	Th	6:10-8	\$32	p. 28
2-221	Chinese Literature (2)	Brown	W	6:10-8	\$32	p. 28

Information Methods

2-225	Principles of Editing and Their Application (3)	Smith	W	6:10-8:40	\$48	p. 28
2-239	Intermediate Editing (3)	Perlmutter and Sharp	Tu	6:10-8:40	\$48	p. 29
2-412	Editing Technical Manuscripts (2)	Reynolds	M	6:10-8	\$32	p. 29
2-415	Producing Popular Publication (2)	Feldman	W	6:10-8	\$32	p. 29
2-220	Indexing (2)	Kelly	Tu	6:10-8	\$32	p. 29
2-237	Printing, Layout, and Design (2)	Murow and Associates	M	6:10-8	\$32	p. 30
2-243	Design in Visual Communication (2)	Granahan	Th	6:10-8	\$32	p. 30
2-276	Documentary Film (2)	Schwartz	M	7-8:50	\$32	p. 30
	(Meets at Montgomery Blair High School, Silver Spring, Maryland)					

Library Techniques

2-125	Introduction to Library Service (2)	Moran	M	6:10-8	\$32	p. 30
2-135	Introduction to Cataloging and Classification (2)				\$32	p. 30
	Section I Birch	M	6:10-8			
	Section II Braucher	W	6:10-8			
2-137	Basic Reference Service and Reference Tools (2)	Birch	W	6:10-8	\$32	p. 31
2-138	Introduction to Bibliographic Science (2)	Sherrod	Tu	6:10-8	\$32	p. 31
2-153	Automation of Library Operations (2)	Lebowitz	Th	6:10-8	\$32	p. 31
2-160	Library Techniques—Seminar (3)	Sherrod	Th	6:10-8:40	\$48	p. 32

Speech

2-228	Public Speaking for Beginners	(2)	Miller	Th	6:10-8	\$32	p. 32
2-229	Advanced Public Speaking	(2)	Donahue	W	6:10-8	\$32	p. 32
2-232	Voice and Remedial Speech	(2)	Fitzgerald	Tu	6:10-8	\$32	p. 32

Foreign Languages

2-209A	Introduction to Linguistics	(First Half)	(3)	Thompson	W	6:10-8:40	\$48 p. 33
2-219	Principles of Translation	(3)	La Roche	M	6:10-8:40	\$48	p. 33

Chinese

2-200A	Elementary Mandarin Chinese	(First Half)	(4)	Hu	Tu-Th	6:10-8	\$64 p. 33
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French

2-253A	Elementary French (First Half)	(3)	\$48	p. 33
	Section I	Thatcher	Tu 6:10-8:40	
	Section II	Bargin	Th 6:10-8:40	
2-253B	Elementary French (Second Half)	(3)	Bargin	M 6:10-8:40 \$48 p.33
2-254A	Intermediate French (First Half)	(3)	Bargin	Tu 6:10-8:40 \$48 p. 34
2-68	Reading French (non-credit)	de Constant	Tu 6:10-8:40	\$48 p. 34
2-87	Basic Conversational French (non-credit)	Bargin	W 6:10-8:40	\$48 p. 34
2-255	Advanced French Conversation and Composition	(3)	Thatcher	Th 6:10-8:40 \$48 p. 34
2-258	Advanced French Reading	(3)	de Constant	W 6:10-8:40 \$48 p. 34
2-274	Advanced French Reading and Conversation	(3)	de Constant	M 6:10-8:40 \$48 p. 34
2-284	France Today	(3)	d'Haucourt	Th 6:10-8:40 \$48 p. 34

German

2-259A	Elementary German	(First Half)	(3)	Hoffmann	Th	6:10-8:40	\$48 p. 34
2-260A	Intermediate German	(First Half)	(3)	Rose	W	6:10-8:40	\$48 p. 35
2-88	Basic Conversational German I	(non-credit)		von Luttichau	Tu	6:10-8:40	\$48 p. 35
2-96	Basic Conversational German II	(non-credit)		von Luttichau	Th	6:10-8:40	\$48 p. 35
2-196	Scientific German I	(3)	Neil	M	6:10-8:40	\$48	p. 35
2-197	Scientific German II	(3)	Neil	Th	6:10-8:40	\$48	p. 35

Italian

2-270A	Elementary Italian	(First Half)	(3)	Bauer	Tu	6:10-8:40	\$48 p. 35
2-271A	Intermediate Italian	(First Half)	(3)	Bondi	Th	6:10-8:40	\$48 p. 35

Portuguese

2-290A	Elementary Portuguese	(First Half)	(3)	Luxardo	Tu	6:10-8:40	\$48 p. 35
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Russian

2-295A	Elementary Russian	(First Half)	(3)	\$48	p. 36
	Section I	Fediay	Tu	6:10-8:40	
	Section II	Richter	Th	6:10-8:40	
2-296A	Intermediate Russian	(First Half)	(3)	Richter	Tu 6:10-8:40 \$48 p. 36
2-299A	Advanced Russian	(First Half)	(3)	Gerich	Th 6:10-8:40 \$48 p. 36
2-292	Scientific Russian I	(3)	Boldyreff	M 6:10-8:40	\$48 p. 36
2-294	Scientific Russian II	(3)	Boldyreff	W 6:10-8:40	\$48 p. 36
2-31	Russian Poetry (non-credit)	Boldyreff	F 6:10-8:40	\$48	p. 36

Spanish

2-300A	Elementary Spanish (First Half)	(3)	\$48	p. 37
	Section I	Jaffe	M 6:10-8:40	
	Section II	Otero	Tu 6:10-8:40	
2-301A	Intermediate Spanish (First Half)	(3)	Brouwer	Th 6:10-8:40 \$48 p. 37
2-302A	Advanced Spanish Conversation and Composition (First Half)	(2)	Lasaga	
	W 6:10-8	\$32	p. 37	

No.	Course Title	(Cr.)	Instructor	Day	Time	Fee	Catalog Page
2-83	Basic Conversational Spanish I	(non-credit)				\$32 p. 37	
	Section I Lasaga	M 6:10-8					
	Section II Otero	Th 6:10-8					
2-84	Basic Conversational Spanish II	(non-credit)	Otero	M	6:10-8	\$32 p. 37	

Swahili

2-210A	Elementary Swahili	(First Half)	(3)	de Lany	Tu 6:10-8:40	\$48 p. 37	
2-211A	Intermediate Swahili	(First Half)	(3)	de Lany	Th 6:10-8:40	\$48 p. 37	

MATHEMATICS AND STATISTICS

Mathematics

3-8	Intermediate Algebra	(non-credit)				\$48 p. 38	
	Section I Butler	Tu 6:10-8:40					
	Section II Fox	Th 6:10-8:40					
3-30	Basic Mathematics	(non-credit)				\$32 p. 39	
3-1A	Review of College Freshman Mathematics	(First Half)	(non-credit)				
	Diamond	M 6:10-8	\$32 p. 39				
3-102	College Algebra	(4)	\$64 p. 39				
	Section I Lacher	M-W 6:10-8					
	Section II Gordon	Tu-Th 6:10-8					
	(Meets at Walt Whitman High School, Bethesda, Maryland)						
3-103	Trigonometry and Analytic Geometry	(4)	\$64 p. 39				
	Section I Howcroft	M-W 6:10-8					
	Section II Silverstein	Tu-Th 6:10-8					
3-206A	Calculus	(First Half)	(4)	\$64 p. 40			
	Section I Ogden	M-W 6:10-8					
	Section II Mitchell	M-W 6:10-8					
3-206B	Calculus	(Second Half)	(4)	Spooner	Tu-Th 6:10-8	\$64 p. 40	
3-415A	Elementary Matrix Theory	(First Half)	(3)	\$48 p. 40			
	Section I Gambino	Tu 6:10-8:40					
	Section II Sanburn	Th 7:10-9:40					
3-444	Elements of Abstract Algebra	(3)	Sanburn	Tu 7:10-9:40	\$48 p. 40		
3-502A	Differential Equations	(First Half)	(3)	McGrane	M 6:10-8:40	\$48 p. 40	
3-500A	Topics in Higher Applied Mathematics	(First Half)	(3)	Neyman	M 6:10-8:40	\$48 p. 40	
3-310A	Introduction to Probability Theory	(First Half)	(3)	Raff	Tu 6:10-8:40	\$48 p. 40	
3-312A	Numerical Methods in Computation	(First Half)	(2)	Meals	F 6:10-8	\$32 p. 41	
3-599	Numerical Methods for Scientists and Engineers	(3)	Kraft	Th 6:10-8:40	\$48 p. 41		
3-546A	Application of Differential Equations to Engineering Theory and Related Problems including Wave Theory	(First Half)	(3)	McGrane	W 6:10-8:40	\$48 p. 41	
3-509A	Mathematics for Economists	(First Half)	(3)	\$48 p. 42			
	Section I Rojko	W 6:10-8:40					
	Section II Rojko	Th 6:10-8:40					
8-406	Engineering Mathematics	(4)	Plait	Tu-Th 6:10-8	\$64 p. 109		
3-532	Introduction to Linear Programming	(3)	Mylander	W 6:10-8:40	\$48 p. 42		
3-533	Mathematical Methods in Operations Research I	(3)	\$48 p. 42				
	Section I Miller	M 6:10-8:40					
	Section II Miller	Th 6:10-8:40					

Statistics

3-6	Preparatory Mathematics for Introductory Statistics	(non-credit)				\$32 p. 44	
	Section I Kibler	M 6:10-8					
	Section II Kibler	Tu 6:10-8					
3-126A	Introductory Statistics	(First Half)	(3)	\$48 p. 44			
	Section I Condie	M 6:10-8:40					
	Section II Moore	M 6:10-8:40					
	Section III Urban	W 6:10-8:40					
	Section IV Magleby	Th 6:10-8:40					
3-126B	Introductory Statistics	(Second Half)	(3)	\$48 p. 44			
	Section I West	Tu 6:10-8:40					
	Section II Hart	Th 6:10-8:40					
3-380A	Principles of Statistical Analysis	(First Half)	(3)	Caudill	Tu 6:10-8:40	\$48 p. 44	

No.	Course Title (Cr.)	Instructor	Day	Time	Fee	Catalog Page
3-385A	Elements of Statistical Methods (First Half) (2)	Wilson			M 4:45-6:35	\$32 p. 44
	(Meets at Agricultural Research Center, Beltsville, Maryland)					
3-136	Graphic Methods of Presenting Statistics (2)	Guidry	Th	6:10-8	\$32	p. 44
3-318	Machine Tabulation I (2)	Pell	Tu	6:10-8	\$32	p. 45
3-319	Machine Tabulation II (2)	Pell	Th	6:10-8	\$32	p. 45
3-400A	Mathematical Statistics (First Half) (4)	Bailar and Bailar			M-W 6:10-8	\$64 p. 45
3-405	Statistics in Experimental Research (3)	Huddleston	Th	6:10-8:40	\$48	p. 45
3-450	Introduction to Population Statistics (3)	Siegel	Tu	6:30-9	\$48	p. 45
3-460A	Stochastic Processes (First Half) (3)	Bailar	Th	6:10-8:40	\$48	p. 46
3-490A	Application of Experimental Statistics to Biological Problems (First Half) (3)	Lehmann and Miller	Tu	6:10-8:40	\$48	p. 46
3-735A	Theory of Sample Surveys (First Half) (2)	Steinberg and Waksberg			W 6:10-8	\$32 p. 46
3-763	Nonsampling Errors in Statistical Surveys (2)	Sirken	Th	6:10-8	\$32	p. 46
3-025	Federal Statistical Services (non-credit)	Krueger	Th	3:30-5	p. 47	
	(September 18; October 2, 16, and 30) (Registration is required, but no fee is charged.)					

Electronic Data Processing

4-105	Basic Concepts of Data Processing (3)		\$48	p. 54
	Section I	Suter	M 6:10-8:40	
	Section II	Redmer	M 6:30-9	
	(Meets at National Library of Medicine, Bethesda, Maryland)			
	Section III	Richardson	M 6:10-8:40	
	Section IV	Nucci	M 6:10-8:40	
	Section V	Alexander	Tu 6:10-8:40	
	Section VI	Bolton	Tu 4:45-7:15	
	(Meets at U. S. Naval Oceanographic Office, Suitland, Maryland)			
	Section VII	Geiger	Tu 6:10-8:40	
	Section VIII	Nicholson	W 6:10-8:40	
	(Meets at Agricultural Research Center, Beltsville, Maryland)			
	Section IX	Street	W 6:10-8:40	
	Section X	Wiley	W 6:10-8:40	
	Section XI	Schroyer	Th 6:10-8:40	
3-321	Operators Training IBM 360/30 (3)		Lair	W 6:10-8:40 \$48 p. 48
3-322	O. S. Operators Training System 360 (3)		Borough	Th 6:10-8:40 \$48 p. 48
3-559A	Electronic Data Processing—General (First Half) (3)			\$48 p. 48
	Section I	Brown	W 6:10-8:40	
	Section II	Warncke	Th 6:10-8:40	
3-559B	Electronic Data Processing—General (Second Half) (3)		Pinon	
	M 6:10-8:40 \$48 p. 48			
3-345	Computer Programming: Overview (3)			\$48 p. 48
	Section I	Roberts	M 6:10-8:40	
	Section II	Copeland	Tu 6:10-8:40	
	Section III	Muschter	Tu 6:10-8:40	
3-563	Data Processing on Large-Scale Electronic Computers (3)			\$48 p. 48
	Section I	McGann	W 6:10-8:40	
	Section II	McGann	Th 6:10-8:40	
3-596	Fundamentals of Digital Computer Design (3)		Parmentier	Th 6:10-8:40 \$48 p. 49
3-562	ADP System—Analysis, Design, Acquisition, and Operation (3)		Combs	
	M 6:10-8:40 \$48 p. 49			
3-576A	Introduction to UNIVAC 1108 (First Half) (3)		Ferullo	M 6:10-8:40 \$48 p. 49
3-573A	Programming Honeywell 200 (First Half) (3)		Murphy	Tu 6:10-8:40 \$48 p. 49
3-592	IBM System 360 Introduction (3)			\$48 p. 49
	Section I	Cohen	M 6:10-8:40	
	Section II	Haverlock	Tu 6:10-8:40	
	Section III	Mattman	W 6:10-8:40	
	Section IV	Tardiff	Th 6:10-8:40	
3-607	IBM System 360 Assembly Language Coding (3)			\$48 p.50
	Section I	Beck	M 6:10-8:40	
	Section II	Johnson	M 6:10-8:40	
	Section III	Strite	Tu 6:10-8:40	
	Section IV	Heard	W 6:10-8:40	
3-608	IBM System 360 Disk/Tape Operating System Facilities (2)		Instructor to be announced	W 6:10-8 \$32 p. 50

No.	Course Title	(Cr.)	Instructor	Day	Time	Fee	Catalog Page
3-609	IBM System 360 Disk/Tape Operating System Coding	(3)				\$48	p. 50
	Section I	Mattman	M	6:10-8:40			
	Section II	Haverlock	Th	6:10-8:40			
3-610	IBM System 360 Cobol	(3)				\$48	p. 50
	Section I	Droz	M	6:10-8:40			
	(Meets at Library of Congress)						
	Section II	Wiley	M	6:10-8:40			
	Section III	Witters	Th	6:10-8:40			
3-611	IBM System 360 Fortran	(3)	Mattman	Th	6:10-8:40	\$48	p. 50
3-612	IBM System 360 PL/I	(3)	Roberts	W	6:10-8:40	\$48	p. 50
3-613	IBM System 360 O.S. Language Interface	(3)	Beck	W	6:10-8:40	\$48	p. 51
3-595	Cobol Programming—Fundamentals	(3)				\$48	p. 51
	Section I	Scichilone	M	6:10-8:40			
	Section II	Zeller	Tu	6:10-8:40			
	Section III	Kahn	Th	6:10-8:40			
3-589	Fortran Programming for Scientific and Business Computers	(3)				\$48	p. 51
	Section I	Burk	W	6:10-8:40			
	Section II	Schumaker	Th	6:10-8:40			
	Section III	Bolton	Th	4:45-7:15			
	(Meets at U. S. Oceanographic Office, Suitland, Maryland)						
3-475	Simulation and Modelling	(3)	Robin	Tu	6:10-8:40	\$48	p. 51
	(Meets at National Bureau of Standards, Gaithersburg, Maryland)						
3-746	Real-Time Computer Systems	(3)	Schumaker	Tu	6:10-8:40	\$48	p. 51
3-762	Electronic Computer Methods for Statisticians	(3)	Rossow	W	6:10-8:40	\$48	p. 51
3-737A	Systems Analysis and Design (First Half)	(3)	Nowotny	Th	6:10-8:40	\$48	p. 52
2-153	Automation of Library Operations	(2)	Lebowitz	Th	6:10-8	\$32	p. 31
3-312A	Numerical Methods in Computation (First Half)	(2)	Meals	F	6:10-8	\$32	p. 41
4-106	Information Storage and Retrieval by Computer	(3)				\$48	p. 54
	Section I	Scott	Tu	4:45-7:15			
	(Meets at U. S. Naval Oceanographic Office, Suitland, Maryland)						
	Section II	Tyndall	Tu	6:10-8:40			
4-111	Principles of Machine Programming I	(3)	Nicholson	Th	6:10-8:40	\$48	
	(Continuation of Basic Concepts of Data Processing. Explains essential elements of programming using machine symbolic language. Principles of machine programming system. Review of flow charting method of problem analysis. Use of computer instruction set. Input-output methods and systems. Prerequisite: Basic Concepts of Data Processing.)						
	(Meets at Agricultural Research Center, Beltsville, Maryland)						
6-502	Computer Equipment Selection	(3)	Joslin	M	6:10-8:40	\$48	p. 83
6-705	Computer Applications in Law	(2)	Beath	Tu	6:10-8	\$32	p. 82
8-223	Map Projections and Grid Systems	(2)	Basile	Tu	6:10-8	\$32	p. 116
8-685	Engineering Applications of Digital Computers	(3)	Smith	Th	6:10-8:40	\$48	p. 108

OFFICE TECHNIQUES AND OPERATIONS

Administrative Procedures

4-101	Everyday Mathematics	(2)				\$32	p. 54
	Section I	Mouser	Tu	6:10-8			
	Section II	Guyton	Th	6:10-8			
4-105	Basic Concepts of Data Processing	(3)				\$48	p. 54
	Section I	Suter	M	6:10-8:40			
	Section II	Redmer	M	6:30-9			
	(Meets at National Library of Medicine, Bethesda, Maryland)						
	Section III	Richardson	M	6:10-8:40			
	Section IV	Nucci	M	6:10-8:40			
	Section V	Alexander	Tu	6:10-8:40			
	Section VI	Bolton	Tu	4:45-7:15			
	(Meets at U. S. Naval Oceanographic Office, Suitland, Maryland)						
	Section VII	Geiger	Tu	6:10-8:40			
	Section VIII	Nicholson	W	6:10-8:40			
	(Meets at Agricultural Research Center, Beltsville, Maryland)						
	Section IX	Street	W	6:10-8:40			
	Section X	Willey	W	6:10-8:40			
	Section XI	Schroyer	Th	6:10-8:40			

No.	Course Title (Cr.)	Instructor	Day	Time	Fee	Catalog Page
4-111	Principles of Machine Programming I (3) (Continuation of Basic Concepts of Data Processing. Essential elements of programming using machine symbolic language. Principles of machine programming system. Review of flow charting method of problem analysis. Use of computer instruction set. Input-output methods and systems. Pre-requisite: Basic Concepts of Data Processing.) (Meets at Agricultural Research Center, Beltsville, Maryland)	Nicholson	Th	6:10-8:40	\$48	
4-106	Information Storage and Retrieval by Computer (3) Section I Scott Tu 4:45-7:15 (Meets at U. S. Naval Oceanographic Office, Suitland, Maryland) Section II Tyndall Tu 6:10-8:40				\$48	p. 54
4-108	Administrative Procedure (2) Section I Bartolomeo M 6:10-8 Section II Wright Tu 6:10-8				\$32	p. 54
4-201	Modern Supervisory Practice (2) Section I Berg M 6:10-8:30 Section II Koenig Tu 6:10-8:30 Section III Van Dersal W 6:10-8:30				\$32	p. 55 (12 weeks)
4-206	Essentials of Good Office Management (3)	Wagner	W	6:10-8:40	\$48	p. 55
4-112A	Federal Fiscal Procedure (First Half) (2) Section I Finotti M 6:10-8 Section II Robbins M 6:10-8 Section III Robbins W 6:10-8				\$32	p. 55
4-114	Federal Personnel Procedure (2)	Moriarty and Starns	Tu	6:10-8	\$32	p. 55
4-115	Federal Purchasing Procedure (2) Section I Baldauf M 6:10-8 Section II Baldauf W 6:10-8				\$32	p. 56
4-116	Federal Budgetary Procedure: Formulation and Presentation (2) Section I White M 6:10-8 Section II Goodrich W 6:10-8 Section III Murray Th 6:10-8				\$32	p. 56
4-118	Federal Budgetary Procedure: Execution and Fund Control (2) Section I Bartolomeo Tu 6:10-8 Section II Pass W 6:10-8				\$32	p. 56
4-117	Records Management Procedure (2)	Luttrell and Lando	Tu	6:10-8	\$32	p. 56
4-412	Reports and Forms Management (2)	Rice and Meehan	Tu	6:10-8	\$32	p. 57
4-410	Directives Systems Management (2)	Vibbard	Tu	6:10-8	\$32	p. 57
4-330	Government Letter Writing (2)	Noordhoff	Tu	6:10-8	\$32	p. 57

Shorthand

4-89	Review of Gregg Shorthand (Anniversary), 60-80 Words (non-credit) M-Th 6:10-7:30	Dow			\$48	p. 58
4-129	Gregg Shorthand I (3) Section I Brewer M-Th 6:10-7:30 Section II Gros M-Th 6:10-7:30				\$48	p. 58
4-130	Gregg Shorthand II (3) Section I Shaw M-Th 6:10-7:30 Section II Fritz M-Th 6:10-7:30 Section III Murphy M-Th 6:10-7:30				\$48	p. 58
4-225	Gregg Shorthand III (60-80 Words) (3) Section I Vallieres M-Th 6:10-7:30 Section II Jackowski M-Th 6:10-7:30 Section III Olsen M-Th 6:10-7:30				\$48	p. 58
4-226	Gregg Shorthand IV (80-100 Words) (3) \$48 p. 59	Trottnow	M-Th	6:10-7:30		
4-227	Gregg Shorthand V (100-120 Words) (3) \$48 p. 59	Ledoux	M-Th	6:10-7:30		

PHYSICAL SCIENCES

General

5-349	Introduction to Space Science (2)	Fellows	M	6:10-8	\$32	p. 60
5-175A	General Astronomy (First Half) (3) (Meets at U. S. Naval Observatory)	Fiala	W	6:10-8:40	\$48	p. 60
5-596A	Introduction to Pharmacology (First Half) (3) \$48 p. 61	Margolis	M	6:10-8:40		
5-765A	Practical Electronics for Biologists and Chemists (First Half) (2) M 6:10-8 \$32 p. 61	Wilkins				

No.	Course Title	(Cr.)	Instructor	Day	Time	Fee	Catalog Page
Chemistry and Physics							
5-100A	General Chemistry (First Half)	(3)	Hertzberg	Th	6:10-8:40	\$48	p. 61
5-248A	Organic Chemistry (First Half)	(3)	Shine	Th	6:10-8:40	\$48	p. 61
5-512A	Advanced Organic Chemistry (First Half)	(3)	Pohland	M	6:10-8:40	\$48	p. 61
5-404	Organic Chemistry of Pesticides	(3)	Benson	W	6:10-8:40	\$48	p. 62
5-315A	Elementary Biochemistry (First Half)	(2)	Flick	W	6:10-8	\$32	p. 62
5-320A	Basic Biochemistry (First Half)	(2)	Feinstein	Tu	5-6:50	\$32	p. 62 (Meets at Plant Industry Station, Beltsville, Maryland)
5-406	Nutritional Biochemistry	(2)	Adkins	Th	6:10-8	\$32	p. 62
5-403	Biochemistry of Steroid Hormones	(3)	Tolson	W	6:10-8:40	\$48	p. 62
5-339A	Physical Chemistry (First Half)	(3)	Abramowitz	W	6:10-8:40	\$48	p. 62
5-525A	Advanced Physical Chemistry (First Half)	(3)	Hertzberg	M	6:10-8:40	\$48	p. 63
5-408	Nuclear Magnetic Resonance Spectroscopy	(3)	Ferretti	M	6:10-8:40	\$48	p. 63
5-155A	Principles of Physics (First Half)	(3)	Smith	Tu	6:10-8:40	\$48	p. 63
5-126	Modern Physics	(2)	Drachman	Tu	6:10-8	\$32	p. 63
5-411	Modern Biophysics	(3)	Parsegian	M	6:10-8:40	\$48	p. 63
5-745	Principles of Masers and Lasers	(3)	Harrison	M	6:10-8:40	\$48	p. 64
5-418	Introduction to Gas Chromatography	(3)	Kazyak	Tu	5:30-8:20	\$48	p. 64 (Meets at Walter Reed Army Institute of Research)

Geography and Geology

5-203	General Geology	(3)	Douglass	Tu	6:10-8:40	\$48	p. 64
5-533A	Hydrology (First Half)	(3)	Baker	Tu	6:10-8:40	\$48	p. 64

Meteorology

5-415	Applied Climatology	(3)	Newhall	M	4:45-7:15	\$48	p. 65 (Meets at Prince Georges Plaza, Hyattsville, Maryland)
5-534A	Dynamic Meteorology (First Half)	(3)	Petersen	Th	6:10-8:40	\$48	p. 65
5-536A	Synoptic Meteorology (First Half)	(3)	McClain	Tu	6:10-8:40	\$48	p. 65
5-592	Physics of Upper Atmosphere and Sounding Techniques	(2)	Giraytys	Tu	6:10-8	\$32	p. 66

Oceanography

5-360	General Oceanography	(2)	Peloquin	W	4:30-6:20	\$32	p. 67 (Meets at U. S. Naval Oceanographic Office, Suitland, Maryland)
5-409	Piloting and Electronics Navigation	(3)	Ackerman	Th	4:30-7	\$48	p. 67 (Meets at U. S. Naval Oceanographic Office, Suitland, Maryland)
5-475	Principles of Underwater Sound	(2)	Winokur	Tu	4:45-6:35	\$32	p. 67 (Meets at U. S. Naval Oceanographic Office, Suitland, Maryland)
5-658	Geological Oceanography	(3)	Weiss	Tu	4:30-7	\$48	p. 68 (Meets at U. S. Naval Oceanographic Office, Suitland, Maryland)
5-520	Marine Geophysics	(2)	Anderson	M	4:30-6:20	\$32	p. 68 (Meets at U. S. Naval Oceanographic Office, Suitland, Maryland)
5-664	Dynamic Oceanography	(2)	Schule	M	4:30-6:20	\$32	p. 69 (Meets at U. S. Naval Oceanographic Office, Suitland, Maryland)
5-666A	Biological Oceanography (First Half)	(2)	Cuzon du Rest	W	4:30-6:20	\$32	p. 69 (Meets at National Oceanographic Data Center)

PUBLIC ADMINISTRATION

General Administration

6-341	American National Government	(3)	Frederic	M	6:10-8:40	\$48	p. 72
6-344	Introduction to Public Administration	(3)	Sims	W	6:10-8:40	\$48	p. 72
6-544	Political Parties	(3)	Gruppenhoff	Th	6:10-8:40	\$48	p. 72
6-515	Legislative Process	(2)	Deuster	Th	6:10-8	\$32	p. 72
6-531	Policies and Techniques for Congressional Liaison	(2)	Clifford	W	6:10-8	\$32	p. 72

No.	Course Title	(Cr.)	Instructor	Day	Time	Fee	Catalog Page
6-355	War Against Poverty—USA	(2)	Adams	W	6:10-8	\$32	p. 72
6-356	Information Retrieval in Poverty Programs	(2)	Havens	M	6:10-8	\$32	
	(Introduction to use of socio-economic information retrieval in war on poverty. Emphasis on computer systems. Designed to acquaint social scientists, economists, sociologists, and others with working tools available for help in applied statistical studies. No prior computer knowledge required.)						
6-440	Metropolis: Government, Finances, and People	(3)	House	W	6:10-8:40		
	\$48 and \$5 laboratory fee	p. 73					
6-507	Governing Science and Technology	(2)	Donnelly	Th	6:10-8	\$32	p. 73
6-453	Human Relations in Administration	(3)	Enneis	Tu	6:10-8:40	\$48	p. 73
6-600	Readings in Public Administration	(3)	Thurston (Coordinator)				
	To be arranged	\$48	p. 73				

American History

6-250	American History to 1865	(3)	Rasmussen	W	6:10-8:40	\$48	p. 74
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Management and Management Analysis

6-347	Principles and Practice of Management	(2)	Wilson	Th	6:10-8	\$32	p. 74
6-405A	Principles and Techniques of Management Analysis (First Half)	(3)					
	Greenwood	Th 6:10-8:40	\$48	p. 75			
6-414	Management and Organization Studies: Case Critiques	(2)	Rapp and Associates	W	6:10-8	\$32	p. 75
6-202	Management—Seminar	(3)	Van Dersal	Th	6:10-8:40	\$48	p. 75
6-511	Quantitative Approaches to Management Problems	(3)	Moundalexis				
	Tu 6:10-8:40	\$48	p. 75				
6-459	Executive Staffwork	(3)	Hurt	M	6:10-8:40	\$48	p. 76
6-519	Work Standards and Work Measurement	(2)	Schneider	Tu	6:10-8	\$32	
	p. 76						
6-521	Management Innovations in Intergovernmental Relations	(2)	Jebens				
	Tu 6:10-8	\$32	p. 76				
6-522	Executive Decision Making	(2)	Finlator	M	6:10-8	\$32	p. 76

Personnel Administration

6-430	Public Personnel Administration	(3)	Maharaj and Weithoner	W	6:10-8:40		
	\$48	p. 78					
6-439	Current Issues in Personnel Administration	(2)	Oganovic	Th	6:10-8	\$32	
	p. 78						
6-432	Management-Employee-Employee-Management Communications	(2)					
	Draheim	Tu 6:10-8	\$32	p. 78			
6-395	Employee-Management Cooperation in Federal Service	(2)	Matthews				
	Tu 6:10-8	\$32	p. 79				
6-473	Employee Benefit Plans: Design and Administration	(2)	Landay and Zisman	Th	6:10-8	\$32	p. 79
6-305	Systems Safety Management	(3)	Gordon	Tu	6:10-8:40	\$48	p. 79
7-446	Personnel Psychology	(3)	Brady	Th	6:10-8:40	\$48	p. 96
6-444	Position Classification	(2)	Pitcher and Wesp	W	6:10-8	\$32	p. 79
6-512	Employment and Placement	(3)	Lorentzen and Associates	M	6:10-8:40		
	\$48 and \$5 laboratory fee	p. 80					
6-520	Manpower Planning and Utilization	(2)	Johns and Associates	Tu	6:10-8		
	\$32	p. 80					

Legal Administration

6-320	Administrative Law and Procedure	(2)	Flavin	M	6:10-8	\$32	p. 81
6-422A	Business Law (First Half)	(2)	Mostow and Pickard	Tu	6:10-8	\$32	p. 81
6-503	Law for Government Managers	(2)	Mostow and Trevas	Th	6:10-8	\$32	
	p. 81						
6-424	Unlawful Selling Practices	(2)	Duncan	Tu	6:10-8	\$32	p. 81
6-705	Computer Applications in Law	(2)	Beath	Tu	6:10-8	\$32	p. 82

Procurement and Property Management

4-115	Federal Purchasing Procedure	(2)		\$32	p. 56		
	Section I	Baldauf	M	6:10-8			
	Section II	Baldauf	W	6:10-8			
6-364	Federal Contracting	(2)	Gunther	W	6:10-8	\$32	p. 82
6-370	Government Construction Contracts	(2)	Cohen, Gantt, and Associates				
	Th 6:10-8	\$32	p. 83				

No.	Course Title	(Cr.)	Instructor	Day	Time	Fee	Catalog Page
6-374	Research and Development Contracting	(2)	Burns	Tu	6:10-8	\$32	p. 83
6-638A	Government Defense Contracts	(First Half) (2)	Davidson	Tu	6:10-8	\$32	p. 83
6-565	Inventory Management	(2)	Silverman	M	6:10-8	\$32	p. 83
6-502	Computer Equipment Selection	(3)	Joslin	M	6:10-8:40	\$48	p. 83
Accounting and Financial Management							
6-635	Federal Budgetary Administration	(2)	Burris	W	6:10-8	\$32	p. 86
6-342	Basic Accounting—Concepts and Terminology	(2)	Stratton	Tu	6:10-8	\$32	p. 87
6-343	Statistical Sampling for Financial Management	(3)	Mandel	W	6-8:30	\$48	p. 87
6-352A	Principles of Accounting (First Half)	(3)				\$48	p. 87
	Section I	Palenski	M	6:10-9:45			
	Section II	Carter	Tu	6:10-9:45			
	Section III	Sitko	W	6:10-9:45			
	Section IV	Tronolone	Th	6:10-9:45			
	Section V	Hirschhorn	F	6:10-9:45			
6-352B	Principles of Accounting (Second Half)	(3)				\$48	p. 87
	Section I	Skinner	M	6:10-9:45			
	Section II	Uyeda	M	6:10-9:45			
6-353A	Intermediate Accounting (First Half)	(3)				\$48	p. 88
	Section I	Hord	M	6:10-8:40			
	Section II	Kurlander	Th	6:10-8:40			
6-420A	Advanced Accounting—Theory and Problems (First Half)	(3)	Baron			\$48	p. 88
6-264A	Federal Government Accounting (First Half)	(2)				\$32	p. 88
	Section I	Canada	W	6:10-8			
	Section II	Canada	Th	6:10-8			
6-601	Principles of Auditing	(3)	Rice	Tu	6:10-8:40	\$48	p. 89
6-650A	Audit and Investigation Management—Seminar (First Half)	(3)	Greess			\$48	p. 89
6-642A	Cost Accounting (First Half)	(3)	Lobb	W	6:10-8:40	\$48	p. 89
6-423	Mathematics of Accounting and Investment	(3)	Bexfield	W	6:10-8:40	\$48	p. 89
6-645A	Federal Income Taxes (First Half)	(3)	Wilson	Tu	6:10-8:40	\$48	p. 89

SOCIAL SCIENCES

Economics

7-201A	Principles of Economics (First Half)	(3)				\$48	p. 90
	Section I	Shapiro	Tu	6:10-8:40			
	Section II	Hady	Th	6:10-8:40			
7-548A	Intermediate Economic Analysis (First Half)	(3)	Edwards	Tu	6:10-8:40	\$48	p. 91
7-570A	Introductory Econometrics (First Half)	(3)	Crom	M	6:10-8:40	\$48	p. 91
7-464	Regional and District Development Planning	(3)	Bird	Tu	6:10-8:40	\$48	p. 91
7-476	Public Finance and Fiscal Policy	(3)	Wagner	Tu	6-8:30	\$48	p. 92
7-497	Urban Economics	(2)	Hurley	Tu	6:10-8	\$32	p. 92
7-576	Urban Centers, New Towns, and Rural Development	(3)	Blum and Dooley	W	6:10-8:40	\$48	p. 92
7-468	Economics of Transportation	(3)	Gerald and Wright	Th	6:10-8:40	\$48	p. 93
7-780	Theories of Economic Growth	(3)	Willett	M	6:10-8:40	\$48	p. 93
7-457	Economics of Agricultural Development	(3)	Christensen	S	9:30-12	\$48	p. 94
7-572	International Monetary Policy	(3)	Kelly	M	6:10-8:40	\$48	p. 94
7-532A	International Marketing and National Export Expansion (First Half)	(3)				\$48	p. 94
	Trotter	Th	6:10-8:40				
7-469	Economics of Cooperative Enterprise	(3)	Abrahamsen	Th	6:10-8:40	\$48	p. 95
7-504	Public Policy and Environmental Pollution—Seminar	(2)	Nicoll	W	6:10-8	\$32	p. 95
7-513	Economics of Outdoor Recreation—Introduction	(3)	Hart	Th	6:10-8:40	\$48	p. 95
7-2	How and Why of Stock Investments I (non-credit)		Wexler	F	6:10-8	\$32	p. 95

No.	Course Title	(Cr.)	Instructor	Day	Time	Fee	Catalog Page
Human Relations							
7-210	General Psychology	(3)	\$48 p. 96				
	Section I De Haan		Tu 6:10-8:40				
	Section II Gould		W 6:10-8:40				
7-222	Psychology of Adjustment	(3)	Brady	Tu	6:10-8:40	\$48 p. 96	
7-235	Introductory Social Psychology	(3)	Foote	Tu	6:10-8:40	\$48 p. 96	
7-446	Personnel Psychology	(3)	Brady	Th	6:10-8:40	\$48 and \$2 laboratory fee p. 96	
7-544	Psychological Foundations of Creativity for Professional Improvement	(3)	Arasteh	M	6:10-8:40	\$48 p. 97	
7-541	Improving Human Relations and Group Behavior	(2)	Bauer	M	6:10-8:32 p. 97		
7-600	Readings in Human Relations	(3)	Kraus	To be arranged		\$48 p. 98	
7-400	General Semantics	(2)	Eldridge	W	7:10-9	\$32 p. 98	
	(Meets in Georgetown)						
7-545	Counseling Techniques	(3)	Cornsweet	M	6:10-8:40	\$48 p. 98	
7-547	Counseling and Behavior Modifications—Seminar	(3)	Cornsweet	W	6:10-8:40	\$48 p. 99	
7-536	Psychological Tests and Measurements	(3)	Dupuy	W	6:10-8:40	\$48 p. 99	
7-741	Changing Human Behavior—Seminar	(2)	McPherson	Tu	6:10-8	\$32 p. 99	
7-494	Research Methodology in Behavioral Sciences	(3)	Wright	M	6:10-8:40	\$48 p. 99	
7-501	Brain Models	(3)	White	W	6:10-8:40	\$48 p. 99	
7-749	Urbanization and Mental Health	(3)	Lieberman and Associates	Tu	6:10-8:40	\$48 p. 100	
	(Meets at Barlow Building, 5454 Wisconsin Avenue, N.W., Chevy Chase, Maryland)						
7-549	Juvenile Delinquency	(3)	Kramer	M	6:10-8:40	\$48 p. 100	
7-552	Racial Conflict in United States—Seminar	(3)	Wright	W	6:10-8:40	\$48 p. 100	
7-115A	Introduction to Sociology (First Half)	(3)	Weinstein	Th	6:10-8:40	\$48 p. 100	
7-640	Medical Sociology I	(3)	Kramer	W	6:10-8:40	\$48 p. 101	
7-706	Sociological Literature—Seminar	(3)	Johnston	To be arranged		\$48 p. 101	
7-120	Successful Retirement	(2)	Dreis, Pryor, and Wolfe	Th	6:10-8	\$32	
	(Designed to make retirement years more meaningful. Importance of preparing for retirement. Gains and losses in retirement. Transition from structured to unstructured life. Place of work in life cycle. Financial planning. Living arrangements in retirement. Travel. Courses. Volunteer work. Other major undertakings. Couples encouraged to register.)						
	(Offered in cooperation with the Washington School of Psychiatry.)						
7-265	Everday Logic	(3)	Keys	M	6:10-8:40	\$48 p. 101	
7-314	Contemporary Situation in Philosophy	(3)	Piersol	Tu	6:10-8:40	\$48 p. 101	
7-302	General Anthropology	(3)	Ortner	Tu	6:10-8:40	\$48 p. 102	

International Relations

7-566	Sources of Conflict and Conflict Resolution in Man, Society, and International Relations	(3)	Arasteh	W	6:10-8:40	\$48 p. 102	
7-542	Russia: Yesterday, Today, and Tomorrow	(3)	Czajkowski	W	6:10-8:40	\$48 p. 102	
7-499	Introduction to Modern China	(3)	Simon	M	6:10-8:40	\$48 p. 103	
7-531	Subsaharan Africa: Introduction to Peoples and Cultures	(3)	Mechem	M	6:10-8:40	\$48 p. 103	
7-563	Latin American History	(3)	Richardson	M	6:10-8:40	\$48 p. 103	
7-567	American Diplomatic History to 1900	(3)	Whelan	Tu	6:10-8:40	\$48 p. 103	
7-20	World Politics—Study Discussion Group (non-credit)		Sweeney	W	6:10-8	\$22 p. 103 (10 weeks)	

TECHNOLOGY

Engineering

8-92	Review of Engineering Fundamentals for P. E. Examination (non-credit)		Rixse	W	6-8:40	\$48 p. 105	
8-93	Civil Engineering Review for P. E. Examination (non-credit)		O'Fallon	M	6:10-8:40	\$48 p. 105	
8-95	Electrical Engineering Review for P. E. Examination (non-credit)		Jessel, Jacobsen, and Joffe	W	6:10-8:40	\$48 p. 106	
8-98	Mechanical Engineering Review for P. E. Examination (non-credit)		Jessop	Tu	6:10-8:40	\$48 p. 106	

No.	Course Title	(Cr.)	Instructor	Day	Time	Fee	Catalog Page
8-110A	Principles of Electricity (First Half)	(2)	Askegaard	M	6:10-8	\$32	p. 106
8-443	Analytical Mechanics I: Statics and Dynamics	(3)	Viner	W	6:10-8:40		
	\$48 p. 106						
8-725A	Power System Analysis (First Half)	(3)	Slingluff	M	6:10-8:40	\$48	
	p. 106						
8-465A	Fundamentals of Electronics (First Half)	(3)	Cullinane	M	6:10-8:40		
	\$48 p. 107						
8-525A	Transistor Electronics (First Half)	(3)	Laug	Tu	6:10-8:40	\$48	p. 107
8-485	Evaluation of Electric Power Interconnections—Seminar	(3)	Delson				
	Th 6:10-8:40 \$48 p. 107						
8-711	Servomechanisms	(3)	Titus	W	6:10-8:40	\$48	p. 107
8-407	Radar Systems Engineering	(2)	Trisler	M	6:10-8	\$32	p. 107
8-690	Nuclear Reactors	(2)	Schulman	M	6:10-8	\$32	p. 108
8-405	Principles of Specifications	(2)	Rosenzweig	Tu	6:10-8	\$32	p. 108
8-311A	Naval Architecture and Marine Engineering (First Half)	(3)	Warters				
	Tu 6:10-8:40 \$48 p. 108						
8-685	Engineering Applications of Digital Computers	(3)	Smith	Th	6:10-8:40		
	\$48 p. 108						
8-730	Introduction to Systems Engineering	(2)	Yanis	Th	6:10-8	\$32	p. 108
8-474	Engineering Economics	(3)	Blum	F	6:10-8:40	\$48	p. 108
8-406	Engineering Mathematics	(4)	Plait	Tu-Th	6:10-8	\$64	p. 109
8-695A	Engineering Reliability (First Half)	(2)	Price	W	6:10-8	\$32	p. 109
8-714	Heating, Ventilating, and Air Conditioning	(3)	Hollander	W	6:10-8:40		
	\$48 p. 109						
8-720	Site Selection and Engineering	(2)	Weggel	M	6:10-8	\$32	p. 110
8-348	Introduction to Urban-Regional Planning	(3)	Brace	Th	6:10-8:40		
	\$48 p. 110						
8-697	Highway Location and Design	(3)	Green	Th	6:10-8:40	\$48	p. 110

Surveying and Mapping

8-132	Introduction to Geodesy	(2)	Whitten	Tu	6:10-8	\$32	p. 113
8-135	Elementary Surveying	(3)	Blackburn	M	6-8 and 4 Saturdays	\$48	p. 113
8-120	Introduction to Photogrammetry	(2)	Southard	Tu	6:10-8	\$32	p. 114
8-251	Basic Photogrammetry I	(3)	Edson and Mullen	W	6:10-8:40	\$48	p. 114
8-480	Advanced Photogrammetry I	(3)	Keller	W	6:10-8:40	\$48	p. 114
8-208	Aerial Photographic Interpretation	(3)	Chisnell	W	6:10-8:40	\$48	p. 115
8-414	Lunar and Planetary Photography and Photogrammetry	(2)	Kosofsky and Light	Tu	6:10-8	\$32	p. 115
8-125	Cartography I	(3)	Foster	Th	6:10-8:40	\$48	p. 115
8-240	Cartographic Techniques and Map Reproduction	(2)	Basile	Th	6:10-8	\$32	p. 116
8-226	Applications of Mathematics to Surveying and Mapping	(3)	Cook				
	Th 6:10-8:40 \$48 p. 116						
8-223	Map Projections and Grid Systems	(2)	Basile	Tu	6:10-8	\$32	p. 116

Fine Arts

8-320	Pencil Sketching and Water Color Painting	(2)	Cupoli	M	6:10-9	\$48 and \$5 laboratory fee	p. 117
8-351	Oil Painting	(2)	Cupoli	F	6:10-9	\$48 and \$5 laboratory fee	p. 117
8-332	Introduction to Creative Expression	(2)	McKenna	M	6:10-9	\$48 and \$5 laboratory fee	p. 118
8-323	Portrait Painting in Oil	(2)	Lazzari	W	6:10-9	\$48 and \$5 laboratory fee	p. 118
8-338	Life Sketching	(2)	Cupoli	Th	6:10-9	\$48 and \$10 laboratory fee	p. 118
8-355	Creative Painting	(2)	Abramowitz	M	4:45-7:35	\$48 and \$5 laboratory fee	p. 118
	(Meets at Prince Georges Plaza, Hyattsville, Maryland)						
8-366	Anatomy of Creative Art	(2)	Cohen	W	6:10-9	\$48 and \$5 laboratory fee	p. 118
8-371	Sculpture	(2)	Downey	M	6:10-9	\$48 and \$5 laboratory fee	p. 118
8-333	Art Appreciation	(3)	Brohel	Tu	6:10-8:40	\$48	p. 118
8-368	Beginnings of Modern Art	(3)	Nightlinger	W	6:10-8:40	\$48	p. 119
8-353A	History of Architecture (First Half)	(3)	van Sweden	W	6:10-8:40	\$48 and \$3 laboratory fee	p. 119
8-354	Problems in Contemporary Urban Development	(3)	van Sweden				
	Th 6:10-8:40 \$48 and \$3 laboratory fee						p. 119
8-339	Architectural Graphics	(3)	Pledger	W	6:10-8:40	\$48	p. 120
8-370	Music Appreciation	(3)	Shortridge	Th	6:10-8:40	\$48 and \$5 laboratory fee	p. 120

No.	Course Title	(Cr.)	Instructor	Day	Time	Fee	Catalog Page
8-445A	Music Theory (First Half)	(3)	Shortridge	W	6:10-8:40	\$48	p. 120
8-359	Sources of Theater	(2)	Waters	Tu	6:10-8	\$32	p. 120
8-373	Motion Picture Appreciation	(2)	Spehr	M	6:10-8	\$32 and \$3 laboratory fee	p. 120

Applied Arts

8-35	Introduction to Institutional Housekeeping (non-credit)		Morgan and Associates	Th	6:10-9	\$48	p. 120
8-55	Introduction to Interior Design (non-credit)		Meyer	Th	6:10-8	\$32	p. 121
8-144A	Graphic Arts in Federal Government (First Half)	(2)	Eysenburg and Taylor	W	6:10-8	\$32	p. 121
8-146	Creative Illustration	(2)	Auld	Tu	6:10-8	\$32	p. 121
8-322	Art, Layout, and Design for Reproduction	(2)	Granahan and Taylor	Tu	6:10-8	\$32	p. 121
8-140	Dimensional Design	(2)	Baka	W	6:10-8	\$32	p. 121
8-142	Exhibit Graphics and Fabrication	(2)	Schleyer	W	6:10-8	\$32	p. 122
2-243	Design in Visual Communication	(2)	Granahan	Th	6:10-8	\$32	p. 30
8-284	Landscape Design of Small Property	(2)	Pledger	Th	6:10-8	\$32	p. 122

Photography

8-70	Introduction to Photography (non-credit)					\$32 and \$2 laboratory fee	p. 122
	Section I	McCullough	W	6:10-8			
	Section II	McCullough	Th	6:10-8			
8-155	Movie Making Workshop	(2)	Polishuk	W	6:10-8	\$32 and \$5 laboratory fee	
	(For the beginner and advanced student. Designed to offer opportunity to plan films and to follow through under guidance of professional film maker. Practice in filming, editing, and projecting movies.)						
8-192	Fundamentals of Photography I	(2)				\$32	p. 123
	Section I	Menhennett	Tu	6:10-8			
	Section II	Szeluga	W	6:10-8			
8-193	Practice of Photography I	(3)				\$48 and \$4 laboratory fee	p. 123
	Section I	Fuller	M	6:10-8:40			
	Section II	Schneider	W	6:10-8:40			
8-196	Practice of Photography II	(2)	Fuller	Tu	6:10-8	\$32 and \$4 laboratory fee	p. 123
8-360A	Portrait Photography (First Half)	(2)	Purdy	Th	6:10-8	\$32 and \$6 laboratory fee	p. 123
8-270A	Color Photography and Printing (First Half)	(3)				\$48 and \$15 laboratory fee	p. 123
	Section I	Rodbell	Tu	6:10-8:40			
	(Meets at Walter Reed Armed Forces Institute of Pathology)						
	Section II	Trott	W	6:10-8:40			
	(Meets at Chamberlain High School)						
8-270B	Color Photography and Printing (Second Half)	(3)	Rodbell	Th	6:10-8:40	\$48 and \$15 laboratory fee	p. 123
	(Meets at Walter Reed Armed Forces Institute of Pathology)						
8-194	Creative Photography through Composition I	(2)	Miller	M	6:10-8	\$32 and \$2 laboratory fee	p. 124
8-198	Photo-journalism	(2)	Witte	Tu	6:10-8	\$32	p. 124
8-011	Photographic Roundtable (non-credit)		To be arranged			\$5	p. 124

Lithography

8-165	Copy Preparation—Pasteup	(3)	Martin	W	6:10-8:40	\$48	p. 124
	(Meets at Prince Georges Plaza, Hyattsville, Maryland)						
8-166	Copy Preparation—Photographic	(3)	Wray	Tu	6:10-8:40	\$48 and \$24 laboratory fee	p. 124
	(Meets at Prince Georges Plaza, Hyattsville, Maryland)						
8-170A	Survey of Lithography (First Half)	(3)	Reznikoff	M	6:10-8:40	\$48	p. 125
	(Meets at Nicholas Orem Junior High School, Hyattsville, Maryland)						
8-171A	Offset Stripping and Negative Work (First Half)	(3)	Hamm	M	6:10-8:40	\$48 and \$10 laboratory fee	p. 125
	(Meets at Prince Georges Plaza, Hyattsville, Maryland)						
8-174A	Offset Photography (First Half)	(3)	Rankin	Th	6-9	\$48 and \$10 laboratory fee	p. 125
	(Meets at Prince Georges Plaza, Hyattsville, Maryland)						
8-175	Lithographic Estimating	(2)	Roberts	M	6:10-8	\$32	p. 125
	(Meets at Nicholas Orem Junior High School, Hyattsville, Maryland)						

U. S. DEPARTMENT OF AGRICULTURE
GRADUATE SCHOOL
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1969 FALL SCHEDULE OF CLASSES

